Tomato Bacterial Canker

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Bacterial Canker (Cmm), caused by *Clavibacter michiganensis* pv. *michiganensis,* is a severe and damaging bacterial disease of tomato. All grow stages of the plant are susceptible to this disease. When plants are infected at the seedling stage, they may die quickly, or produce weak plants. Infected young plants may have wilted branches and yellowed leaves. There are two types of symptoms on mature plants: systemic symptoms and superficial symptoms. Systemically infected plants may have curling, yellowed, wilted leaves which later become brown and collapse. The vascular tissue becomes discolored, with the stem tissue first becoming streaked with light yellow to brown streaks which later turn reddish brown. This can be obvious at the nodes. The superficial symptoms are caused by secondary infections of the bacterium. Infection usually happens at the margins of leaves but can occur on petioles or stems. Dark brown to black lesion will occur on the surface of infected plants, and fruit may be spotted with pale green to creamy-white blister-like leaf spots surrounded by dark rings of dead tissue. Control of bacterial diseases is always difficult. Growers should use only certified disease-free seed and transplants. Practice crop rotation away from tomatoes and other solanaceous crops for at least 3 years. This includes potatoes, peppers, and eggplants, as well as tomatoes. All diseased plants should be immediately removed from the planting, and all crop debris removed at soon as the crop is finished. Irrigation should occur early in the morning to allow foliage to dry quickly. Applications of fixed copper plus either Maneb or mancozeb may help control superficial populations of Cmm if applied before symptoms appear. Greenhouses should be disinfected using a product designed for the purpose, or by using a 10% bleach solution. Benches, walls, floor, and containers should be treated.

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Clavibacter michiganensis* pv. *michiganensis



Photo by Sherrie Smith, University of Arkansas Cooperative Extension



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